

# August 2013 Climate Summary for Southwest Lower Michigan

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## Overview

August 2013 was characterized mostly by consistent below normal temperatures. The last week of the month, with above normal temperatures, was the exception. Precipitation was below normal for areas mainly west of U.S. 131 and above normal in areas to the east.

Temperatures were consistently below normal across Southwest Lower Michigan for the first three weeks of the month. Grand Rapids, Lansing, and Muskegon all hit their monthly low temperatures right around the midpoint of the month, on the 14th and 15th of August. The mercury failed to reach 80 degrees in Grand Rapids until August 7<sup>th</sup>, bringing an end to a streak of 14 consecutive days of sub-80 degree weather. Lansing and Muskegon did not hit 90 degrees a single day during August, and Grand Rapids only eclipsed 90 once: 92 degrees on the 27th. Lansing and Muskegon did reach the upper 80s during the final week of the month, which saw above normal temperatures return to West Michigan.

August 2013 saw below normal precipitation to the west of U.S. 131 with higher amounts to the east. Grand Rapids, Muskegon, and Holland received 1.50 inches to 1.75 inches below normal precipitation, while Lansing, Battle Creek, and Jackson all received well above normal precipitation. Kalamazoo had slightly above normal precipitation for the month. The main reason for this geographic split in monthly rainfall was a Mesoscale Convective System (MCS) that swung over the northern periphery of a large ridge and traveled southeast over Lower Michigan on the 27th of August. The large complex developed in Wisconsin and dropped the heaviest rainfall amounts in a swath down through the center of Lower Michigan, just east of U.S. 131. Lansing actually set a daily rainfall record of 3.39 inches on August 27<sup>th</sup>, breaking the old record of 1.50 inches set in 1869. Minor flooding in parking lots, basements, and streets around Lansing and Mt. Pleasant were reported.

Severe weather struck with the MCS on the 27th of August. Some of the strongest winds were reported between U.S. 10 and M-20. Gusts between 40-50 mph were common from Ludington to Big Rapids. Some trees were downed, and some residents were left without power.

Earlier in the month, severe thunderstorms impacted Southwest Lower Michigan in the early morning hours of August 7th. Winds in the 60-70 mph range were common along the Lake Michigan shoreline. A 70 mph gust was reported in Manistee at 3:10 am. Numerous trees down and power outages were reported in Irons. The last of the damage was done around 4 am with numerous trees down in Evart.

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TABLE 1. Reported temperature and precipitation amounts for August 2013 at primary climate stations in Southwest Lower Michigan.

Location		Average Temperature (°F)	Precipitation (inches)
Grand Rapids	Observed	70.1	1.90
	Normal	70.8	3.59
	Above/Below Normal	- 0.7	- 1.69
Lansing	Observed	69.2	4.77
	Normal	69.8	3.23
	Above/Below Normal	- 0.6	+ 1.54
Muskegon	Observed	69.5	1.94
	Normal	69.9	3.39
	Above/Below Normal	- 0.4	- 1.45

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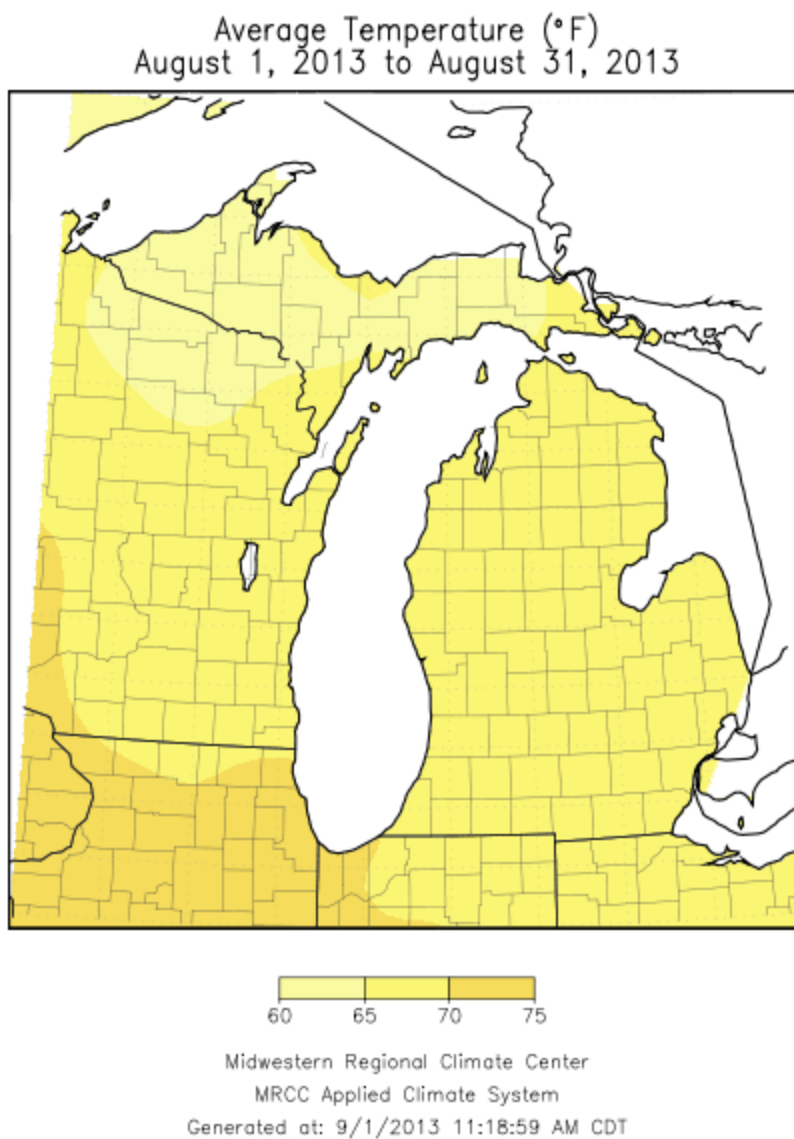


Figure 1. Average temperature (°F) for August 2013.

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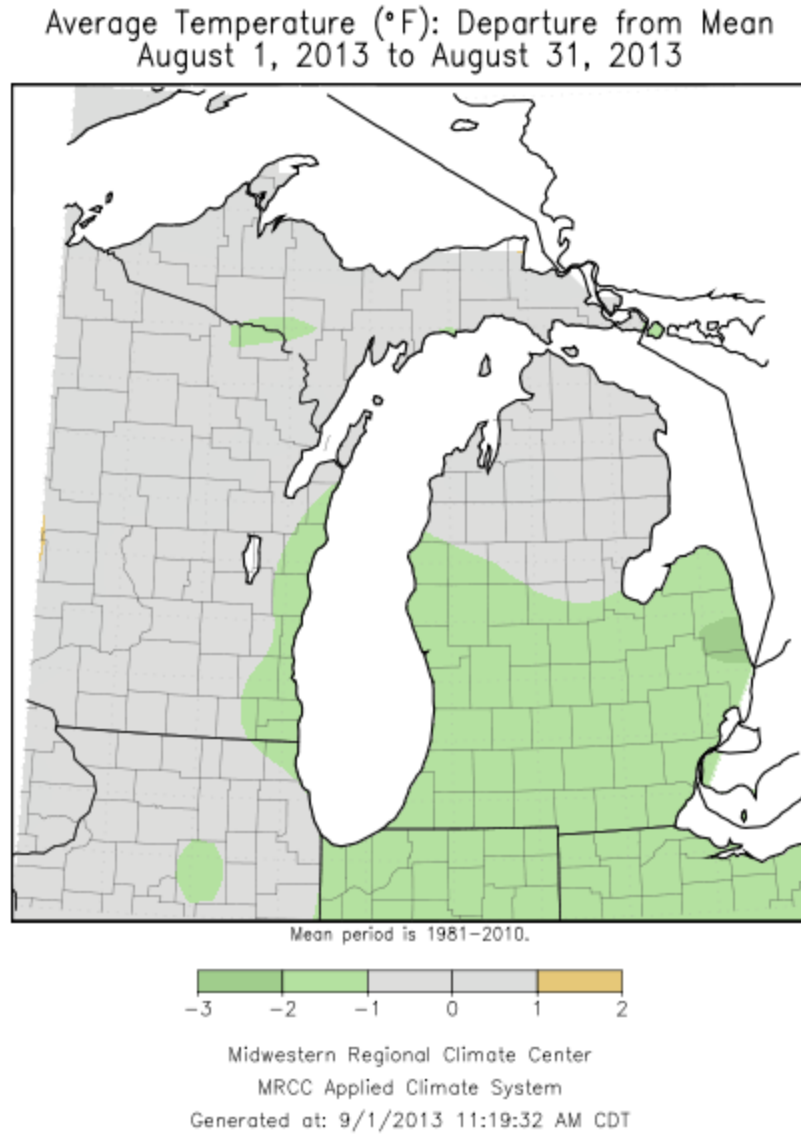


Figure 2. Average temperature departure (°F) for July 2013.

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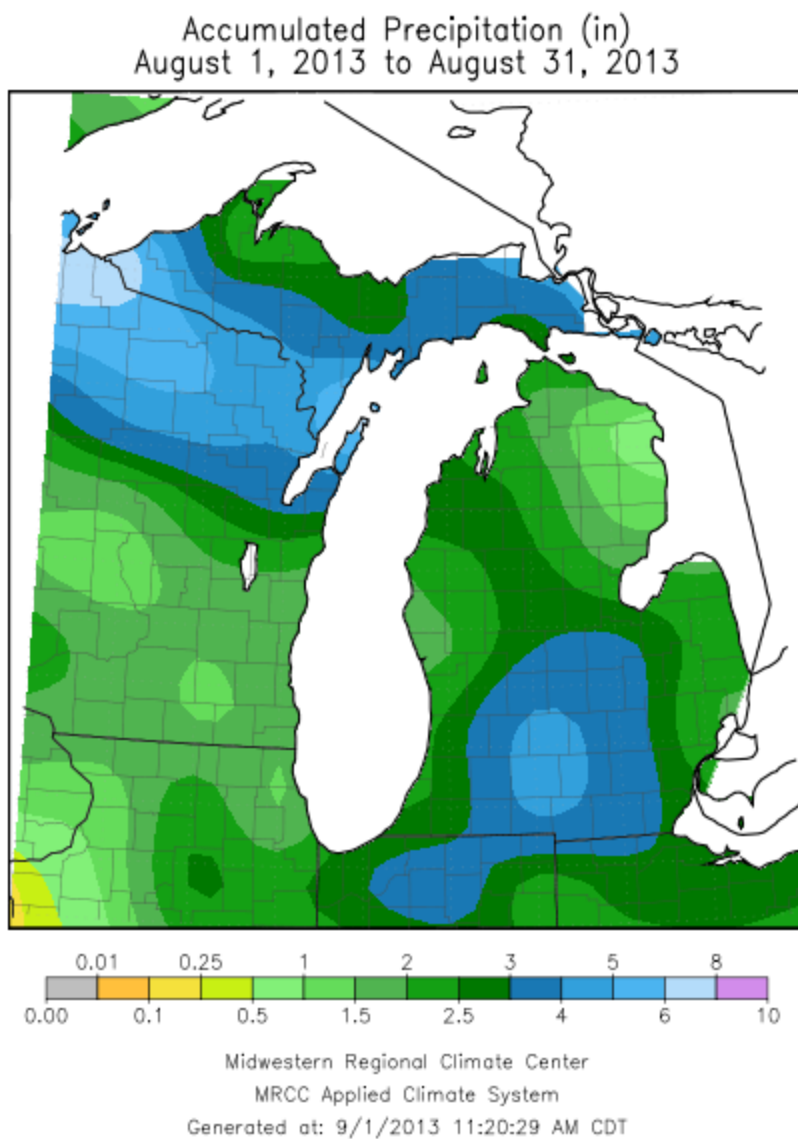
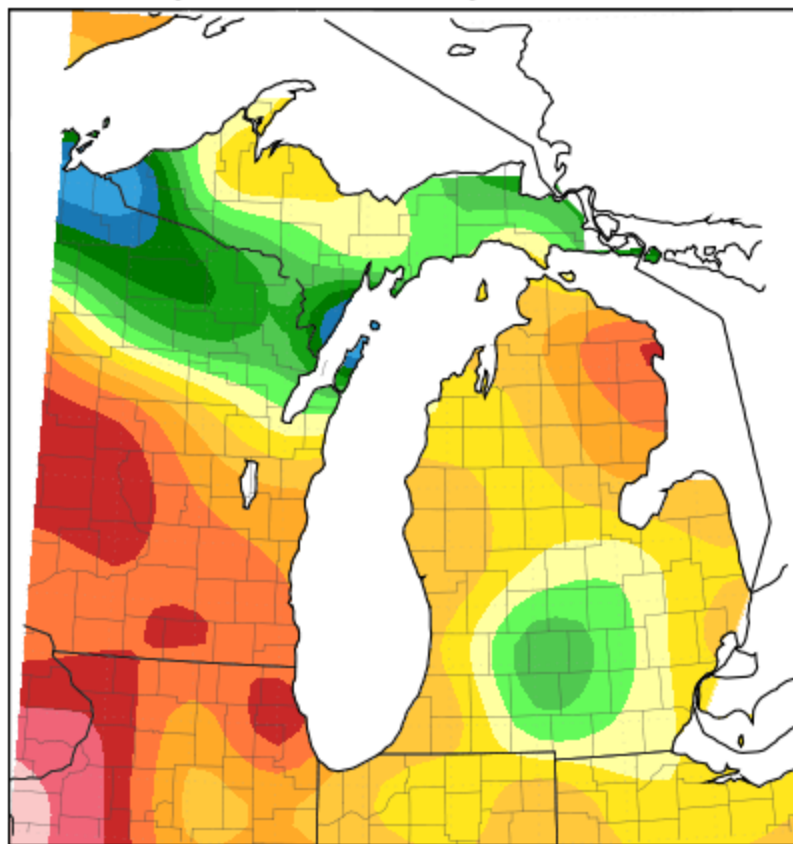


Figure 3. Total precipitation (in inches) for August 2013.

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Accumulated Precipitation (in): Departure from Mean  
August 1, 2013 to August 31, 2013



Mean period is 1981–2010.



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Figure 4. Accumulated precipitation departure (in inches) for August 2013.